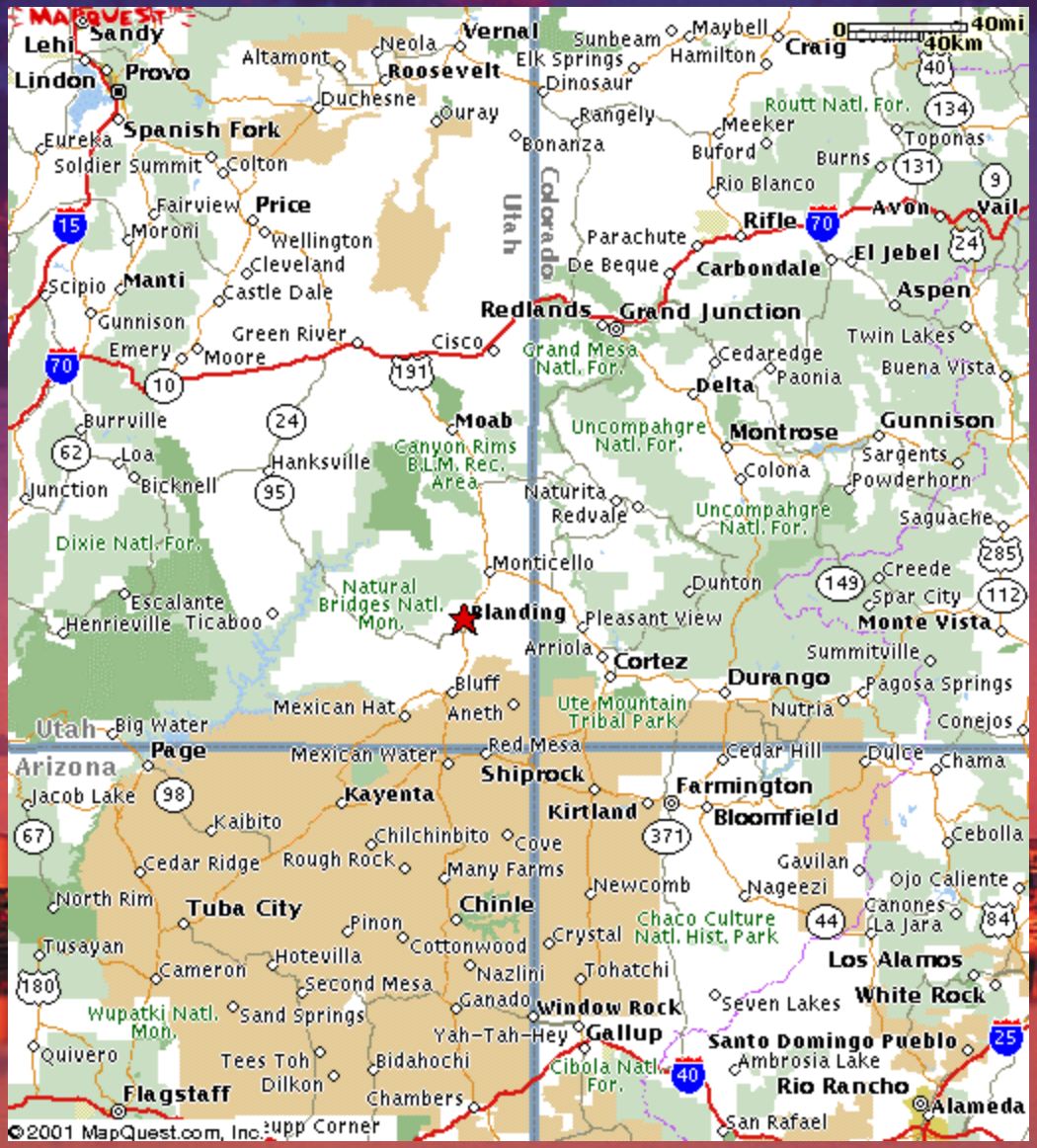

IUC
Department of Energy
Long Term Stewardship
Workshop
July 30 - August 1, 2001
International Uranium (USA) Corporation

Introduction

- Facilities
- Alternate Feed Program
- Benefits of Recycling
- DOE Long-Term Care



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Mill History

- 1977 Licensing and Permitting Began
- 1979 Construction Began
- May 6, 1980 – Feed to Mill
- 1997 IUC Purchases Mill

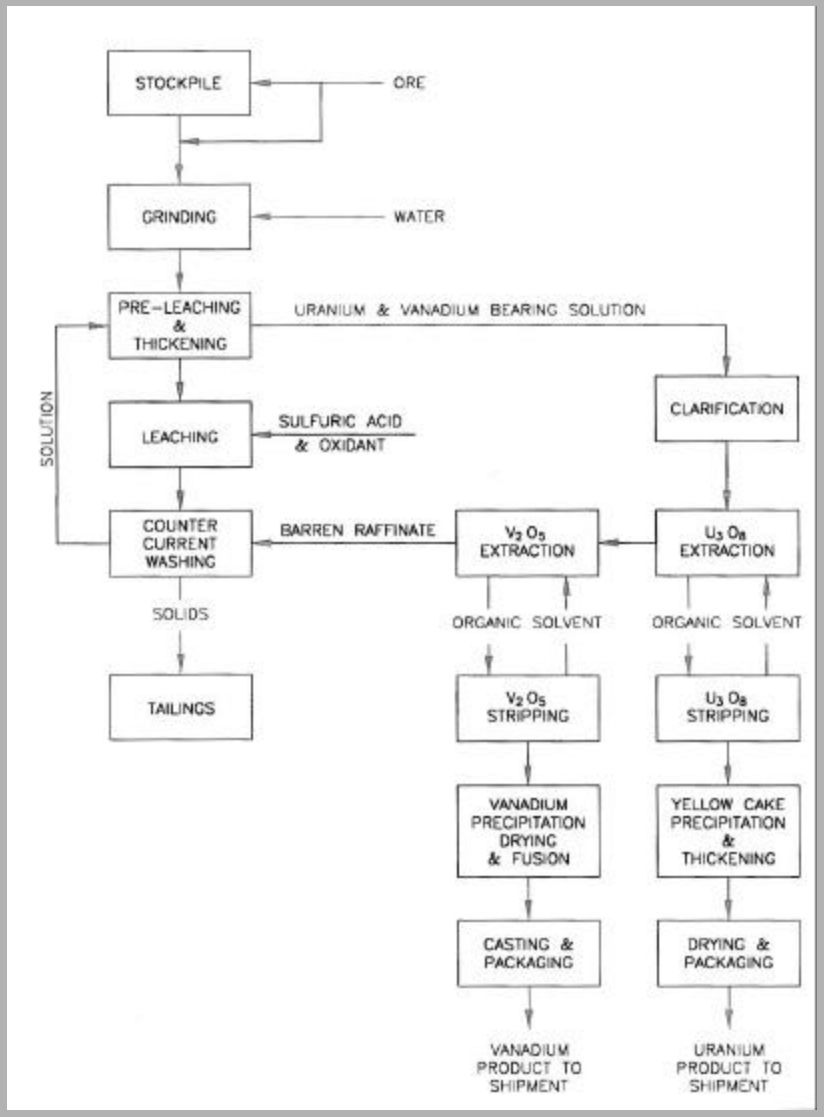
Production

- To Date Processed Over 3.8 Million Tons Ore to Recover 28.3 Million Pounds of U_3O_8 and Over 43 Million Pounds V_2O_5
- Over 1.1 Million Pounds of U_3O_8 Recovered from Alternate Feed Materials
- The Mill has also Produced Tantalum and Niobium from Alternate Feed Materials

Mill Capacity

- Mill Originally Designed for 2,000 TPD
- Can be Configured for Various Capacities
- Tailings Capacity Over 10 Million Tons

Basic Flow Diagram



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WHITE MESA MILL

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Operational Support
(Self Sufficient)

- Warehouse
  - Approximately $1 Million Parts Inventory
- Laboratories
  - Metallurgical Laboratory
  - Analytical Laboratory
- Complete Maintenance Facility
- Over 100 Employees when in Operation
- Largest Industrial Employer in San Juan County

Environmental

- Over 20 Years of Data
- Five Air Monitoring Stations
- Ground and Surface Water Monitoring Program
- Soil & Vegetation Sampling
- Radiometric Surveys and Scans
- No Significant Contamination in Over 20 Years of Operation of the Mill

Tailings Management System

- Zero Discharge System
- 4 Below-grade Tailings Disposal Cells
- All Cells are Lined with Synthetic Liners
- Leak Detection Systems

Tailings Management System
(continued)

- Designed to Protect Groundwater from Radionuclides; Full Suite of RCRA Characteristic and Listed Wastes
- Subject to 10 CFR 40 Appendix A Criteria
- Conforms to EPA Regulations 40 CFR Part 192

TAILINGS

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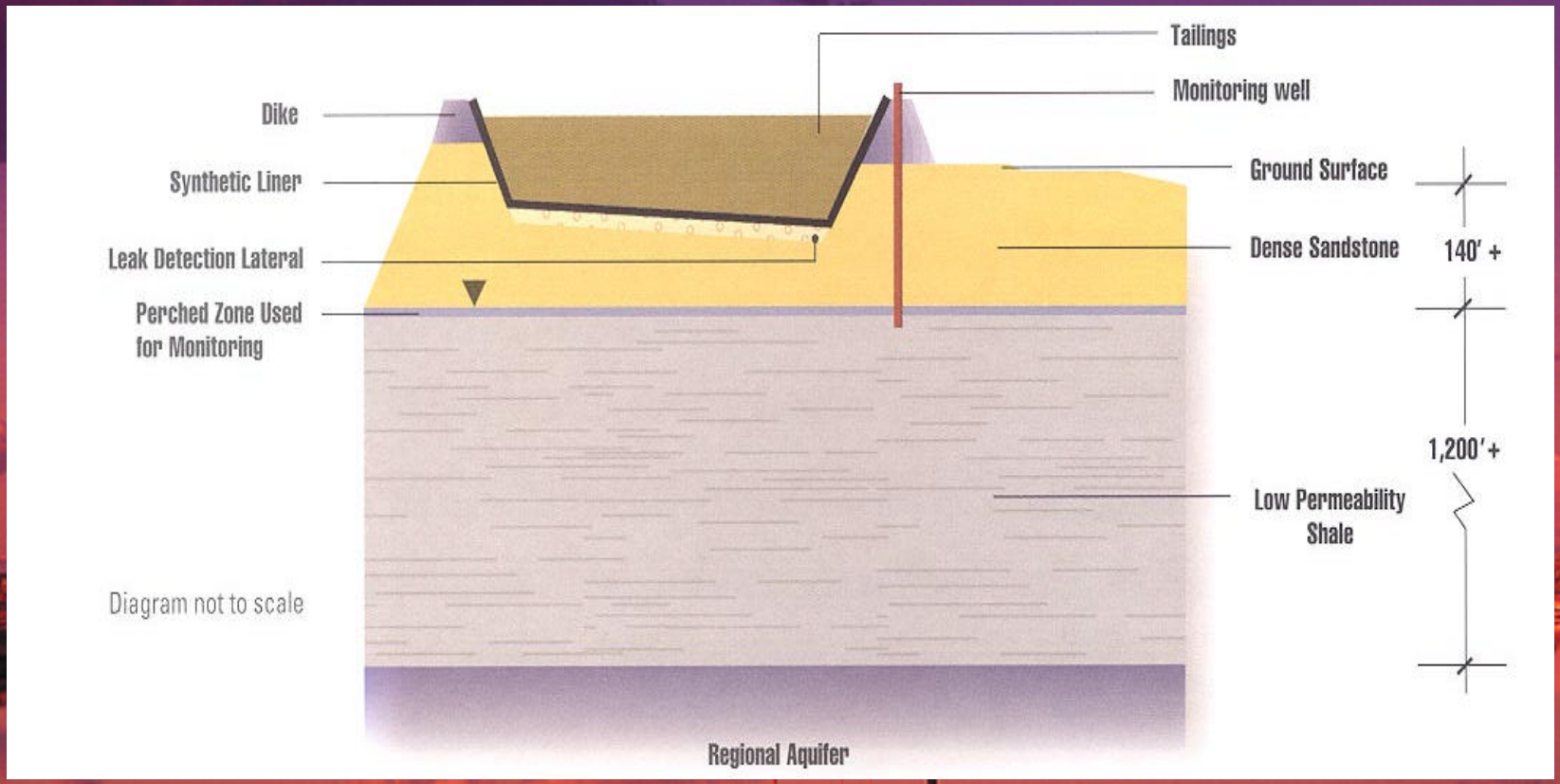
Site Hydrogeology



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Reclamation Plan

- Title II UMTRCA Site
  - NRC-Approved, Progressive Reclamation Plan
  - 1,000 Year Design
  - All Cells Will be Capped
  - Transfer of the Site to DOE

Alternate Feed Campaigns

- FUSRAP Materials
  - Soils, organic compounds, radionuclides
- DOE/NTS Concentrates
  - Slurry, 10% U, high water, low pH
- Nuclear Fuel Cycle Streams
  - Calcium fluoride matrix, 2-5% U
  - Fluoride/calcined byproduct
  - Potassium hydroxide, 6-8% U
  - Uranyl nitrate
- Cabot Residues
  - Tantalum/uranium residues

Alternate Feed Program

Regulatory Process

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Regulatory Regime

- NRC Licensee
- State Air Quality Permit
- License Amendments Required
- Satisfy NRC Alternate Feed Guidance
- 12 License Amendments to Date

NRC Alternate Feed Guidance

- Meets Definition of “Ore”
- Contains no RCRA *Listed* Hazardous Waste
- Processed Primarily for its Source Material
- Processing Complies with 10 CFR Part 40 Appendix A

Feed Acceptance Criteria

- Radionuclides
- Mixed Waste
- Listed Hazardous Wastes - No
- Characteristics of Hazardous Waste - Yes
- Physical Characteristics
  - Particle Size
  - Moisture
  - Debris

Long Term Care

- NRC License
- Site Specifics
- Site Ultimately Transferred to DOE
- NRC/EPA Agreement that CERCLA not be Applied

Added Value of Recycling

- Flexibility
- Environmentally Superior
- Use of Valuable Resource Consistent with RCRA Intent
- Logical solution for DOE Wastes (like Cotter Concentrate), because Mill Site will Transfer to DOE for Long-Term Care